

AMENDMENTS TO THE CLAIMS

1. (Currently amended) An instrument guide for use with an elongated instrument and a computer assisted surgery tracking system, comprising:

a localizer assembly having a central bore;

a handle assembly connected to said localizer assembly; and

at least one guide sleeve, said at least one guide sleeve having a tip end, an attachment end, and a sleeve bore, said attachment end being configured to be inserted into ~~front loaded into~~ said central bore such that a portion of said attachment end is received inside said central bore and engages said central bore such that said attachment end is ~~and rigidly and removably~~ connected to said central bore, said attachment end being configured to be disconnected from said central bore by removing said portion of said attachment end that is received inside said central bore from said central bore, said ~~front loaded~~ at least one guide sleeve is inserted into said central bore such that said tip end does not pass through said central bore, said at least one guide sleeve receiving said elongated instrument at said attachment end and said sleeve bore having a fixed and known position relative to said localizer assembly such that said localizer assembly is used to determine the trajectory of said sleeve bore.

2. (Canceled)

3. (Original) The instrument guide of claim 1, wherein said at least one guide sleeve includes a foot that is oriented to said guide sleeve at a desired angle, said foot engaging a surgical site such that said at least one guide sleeve is oriented to said surgical site at said desired angle.

4. (Original) The instrument guide of claim 1, wherein said tip end has serrations for engaging a surgical site and maintaining the position of said at least one guide sleeve at said surgical site.

5. (Original) The instrument guide of claim 1, wherein said localizer assembly includes a receiver that has a fixed and known position relative to said at least one guide sleeve, said receiver communicating with a computer such that said computer is used to determine the

position of said at least one guide sleeve and displays the position of said at least one guide sleeve relative to a desired surgical site.

6. (Original) The instrument guide of claim 1, wherein said attachment end of said at least one guide sleeve includes a groove and a pin, wherein when said at least one guide sleeve is inserted into said central bore, said groove receiving a ring in said central bore and said pin being received in a hole in said central bore to rigidly maintain said at least one guide sleeve within said central bore.

7. (Original) The instrument guide of claim 1, wherein said elongated instrument is a drill bit.

8. (Original) The instrument guide of claim 1, wherein said at least one guide sleeve comprises a plurality of guide sleeves having varying inner diameters.

9. (Original) The instrument guide of claim 1, wherein said localizer assembly includes an electromagnetic receiver that communicates with an electromagnetic transmitter to determine the position of said receiver relative to a surgical site, said receiver and transmitter communicating with a computer such that said computer determines the position of said instrument guide relative to said surgical site.

10. (Currently amended) The instrument guide of claim 1, wherein each of said handle assembly and said localizer assembly is configured to rotate about said central bore such that said handle assembly and said localizer assembly are movable relative to each other-such that said handle and localizer assemblies are movable to desirable positions.

11. (Original) The instrument guide of claim 1, wherein said at least one guide sleeve comprises a plurality of guide sleeves of varying lengths.

12. (Original) The instrument guide of claim 1, wherein said at least one guide sleeve comprises a feature, and there is a fixed and known relationship between said feature and said localizer assembly, such that said localizer assembly is used to determine the position of said feature.

13. (Currently amended) A computer assisted surgical tracking system, comprising:
a drill bit;

a computer that displays an image of a surgical site; and

a drill guide, said drill guide having a handle assembly, a localizer assembly connected to said handle assembly at a central bore, and at least one guide sleeve, said at least one guide sleeve having a tip end, an attachment end, and a sleeve bore, said attachment end being configured to be inserted into~~front-loaded into~~ said central bore such that a portion of said attachment end is received inside said central bore and engages said central bore such that said attachment end is ~~and rigidly and removably~~ connected to said central bore, said attachment end being configured to be disconnected from said central bore by removing said portion of said attachment end that is received inside said central bore from said central bore, said ~~front-loaded~~ at least one guide sleeve is inserted into said central bore such that said tip end does not pass through said central bore, said at least one guide sleeve receiving said drill bit at said attachment end and said sleeve bore having a fixed and known position relative to said localizer assembly such that said localizer assembly communicates the position of said at least one guide sleeve to said computer, said computer displaying the position and trajectory of said guide sleeve on said image relative to said surgical site.

14. (Canceled)

15. (Original) The tracking system of claim 13, wherein said at least one guide sleeve includes an attachment, said attachment having a fixed and known position relative to said localizer assembly.

16. (Original) The tracking system of claim 15, wherein said attachment is a foot that is oriented to said guide sleeve at a desired angle, said foot engaging said surgical site such that said at least one guide sleeve is oriented to said surgical site at said desired angle.

17. (Original) The tracking system of claim 13, wherein said tip end has serrations for engaging said surgical site and maintaining the position of said at least one guide sleeve at said surgical site.

18. (Original) The tracking system of claim 13, wherein said attachment end of said at least one guide sleeve includes a groove and a pin, wherein when said at least one guide sleeve is inserted into said central bore, said groove receiving a ring in said central bore and said

pin being received in a hole in said central bore to rigidly maintain said at least one guide sleeve within said central bore.

19. (Original) The tracking system of claim 13, wherein said at least one guide sleeve comprises a plurality of guide sleeves having varying diameters.

20. (Original) The tracking system of claim 13, wherein said localizer assembly includes an electromagnetic receiver that communicates with an electromagnetic transmitter to determine the position of said receiver relative to said surgical site, said receiver and transmitter communicating with said computer such that said computer calculates the position of said drill guide relative to said surgical site.

21. (Original) The tracking system of claim 13, wherein said at least one guide sleeve comprises a plurality of guide sleeves having varying lengths.

22. (Previously presented) The tracking system of claim 13, wherein said at least one guide sleeve includes an attachment, said attachment having a fixed and known position relative to said localizer assembly, such that said computer calculates the position of said attachment and display a corresponding representation of said attachment relative to said surgical site.

23. (Withdrawn—currently amended) A method for tracking a surgical procedure, comprising:

taking an image of a surgical site and storing said image on a computer system;

providing a surgical instrument;

providing an instrument guide having a localizer assembly and a handle assembly connected at a central bore and a guide sleeve having a tip end, an attachment end, and a sleeve bore, said guide sleeve having a fixed and known position relative to said localizer assembly;

~~front loading~~ inserting said attachment end of said guide sleeve into said central bore such that a portion of said attachment end is received inside and engages said central bore and is rigidly connected to said central bore and such that said tip end does not pass through said central bore, wherein said attachment end is configured to be disconnected from said central bore

by removing said portion of the attachment end that is received in said central bore from said central bore;

calculating the position of said guide sleeve and displaying said position of said guide sleeve on said image relative to said surgical site by communication between said localizer assembly and said computer system; and

inserting said surgical instrument into said guide sleeve at said attachment end such that said surgical instrument emerges from said tip end to engage said surgical site.

24. (Withdrawn) The method of claim 23 wherein said guide sleeve includes a bore foot that is oriented to said guide sleeve at a desired angle such that said bore foot engages said surgical site in order that said guide sleeve is oriented to said surgical site at said desired angle.